462N Network Interface Card

Description

The 462N Network Interface Card allows the XR500 Series and XR2500F Command Processor™ Panels to communicate alarm, trouble, and system reports to the central station over existing computer data networks. The 462N allows you to configure the baud rate settings to match the network interface, and provides Transmit and Receive LEDs to verify network communication.

LX-Bus™ Expansion Capability

The 462N card also provides a supervised, power limited 4-wire LX-Bus™ to expand connection capacity of the panel LX-Bus so you may attach any combination of LX-Bus devices. The panel expansion harness **Black** and **Red** wires provide power for devices attached to the 462N.

Note: Do **NOT** Connect the 4-wire harness to panel terminals. These wires are used for connecting LX-Bus devices.

Panel Programming Requirements

The 462N card requires the following XR500 Series and XR2500F programming options:

Under **COMMUNICATION**, select:

> **COMM TYPE:** **(NET)** (for data network communications)

Note: If you are connecting directly to a panel, you do not need to change the communication settings. Refer to the XR500 Series/XR2500F Programming Guide (LT-0679) for complete programming instructions.

Setting the 462N Configuration Jumpers

RXD and TXD

Set the two RECEIVE and TRANSMIT (or PLL) jumpers labeled **RXD** and **TXD** to **No.** This allows you to match the card to your network data baud rate. Use the baud rate jumpers to set the 462N card baud rate to 300, 1200, 2400, 4800, or 9600 as needed. Figure 1 identifies the 462N correct jumper setting positions.

If your network supplies its own data clock, move the **RXD** and **TXD** jumpers to **No** and set the baud rate jumpers to **EXT** (for external clock).

FORCE CTS jumper

If your network does not supply a Clear To Send signal, set the **FORCE CTS** jumper to **FORCE** to allow the 462N card to supply its own CTS signal.

HST (NET)

Set the jumper across **HST (**NET**)** to match the Communication option you selected during panel programming.
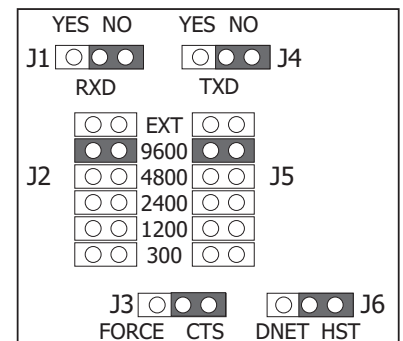

Figure 1: 462N Jumper Settings

Installing the 462N Module

Refer to Figure 2 as needed.

1. Remove AC and battery power from the panel before installing the 462N card.
2. Align the 462N card 50-pin connector with the panel J6 connector. When installing more than one expansion card, install a 461 Interface Adaptor Card.
3. Press the 462N onto the J6 connector 461 Adaptor Card while applying even pressure to both sides.
4. Attach the supplied 4-wire harness to the 4-pin header.
5. Connect LX-Bus devices to the 4-wire harness, respecting wire colors. Do **NOT** Connect the 4-wire harness to panel terminals. These wires are used for connecting LX-Bus devices.
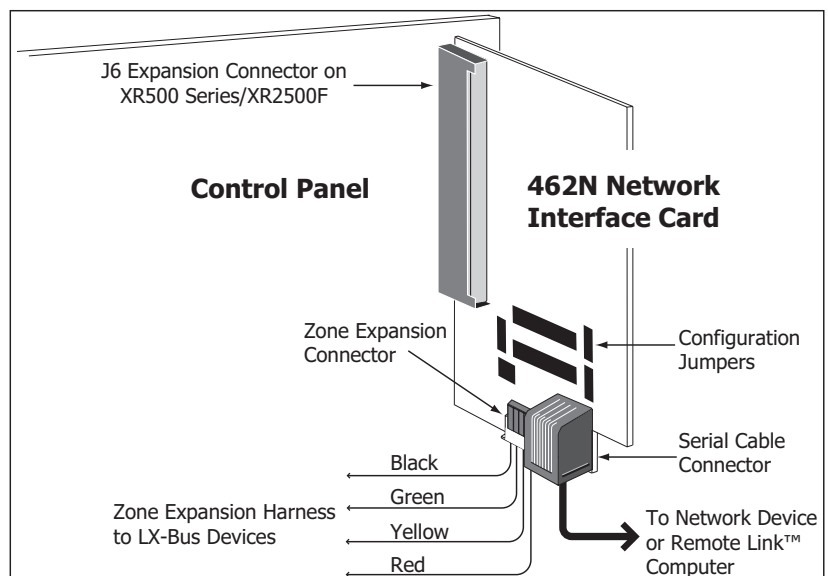
Figure 2: Installing the 462N Network Interface Card

Connecting Network Devices

The 462N Network Interface Card acts as an interface between the panel and a network device. The network connection is supervised and power limited. Ground fault is detected at 0 (Zero) Ohms. The maximum line impedance is 100 Ohms. Refer to the device installation document for complete information.

You may also use the 462N Network Interface Card to connect directly to a computer running Remote Link™ or System Link™ software programs. Use a Model 394 Direct Programming Cable for direct connections. Connect the RJ-45 adapter end to the Serial Cable Connector on the 462N. Connect the DB-9 female connector end of the cable to an unused computer serial port. After installing the 462N card and network cable restore power to the panel.

Connecting LX-Bus Devices

Use the supplied 4-wire harness to connect LX-Bus devices. The LX-Bus is designated Class B, Style 3.5. Respect wire colors when connecting devices. All four wires are used. Refer to the **Accessories** section below for a list of compatible LX-Bus devices.

Note: Do **NOT** use shielded wire when using the LX-Bus.

Note: Do **NOT** connect the wires from the 4-wire harness to the panel terminals.

LX-Bus™ Wiring Specifications

1. DMP recommends using 18 or 22-gauge **unshielded** wire for all keypad and LX-Bus circuits. **Do Not** use twisted pair or shielded wire for LX-Bus and keypad bus data circuits. To maintain auxiliary power integrity when using 22-gauge wire do not exceed 500 feet. When using 18-gauge wire do not exceed 1,000 feet. Install an additional power supply to increase the wire length or add devices.

2. Maximum distance for any one circuit (length of wire) is 2,500 feet regardless of the wire gauge. This distance can be in the form of one long wire run or multiple branches with all wiring totaling no more than 2,500 feet. As wire distance from the panel increases, DC voltage on the wire decreases.

3. Maximum number of devices per 2,500 feet circuit is 40.
   Note: Each panel allows a specific number of supervised keypads. Add additional keypads in the unsupervised mode. Refer to the panel installation guide for the specific number of supervised keypads allowed.

4. Maximum voltage drop between the panel (or auxiliary power supply) and any device is 2.0 VDC. If the voltage at any device is less than the required level, add an auxiliary power supply at the end of the circuit. When voltage is too low, the devices cannot operate properly.

For additional information refer to the panel's Installation Guide, the 710 Installation Sheet (LT-0310), and/or the LX-Bus/Keypad Bus Wiring Application Note (LT-2031).

Compliance Listing Specifications

UL Commercial Fire
Any auxiliary power supply used must be regulated, power limited and listed for Fire Protective Signaling.

Specifications

Primary Power	12 VDC from panel
Current Draw	50mA

Panel Compatibility
XR500 Series, XR2500F

Accessories
461 Interface Adaptor card
394 Direct Programming Cable

Certifications

California State Fire Marshal (CSFM)
New York City (FDNY COA #6167)
Commercial Fire and Burglar Alarm Control Unit

ANSI/UL 864	Fire Protective Signaling 9th Edition
ANSI/UL 365	Police Connected Burglar
ANSI/UL 609	Local Burglar
ANSI/UL 1023	Household Burglar
ANSI/UL 1076	Proprietary Burglar
ANSI/UL 1610	Central Station Burglar
ANSI/UL 985	Household Fire Warning

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2500 North Partnership Boulevard
Springfield, Missouri 65803-8877